0000004

B. KOH & ASSOCIATES, INC.

Environmental Restoration
Radioactive Waste Management

EPA Region 5 Records Ctr.
225790

9199 Reisterstown Road, Suite 111-C
Owings Mills, Maryland 21117-4520
Telephone: (410) 356-6612
FAX: (410) 356-4213

Thursday, January 25, 2001

Ms. Verneta Simon SE-5J
Emergency Response Branch
U.S Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604

Dear Ms. Simon:

In a recent telephone conversation you asked if the physical samples and/or the gamma spectra for the results we reported in SUMMARY OF RADIOLOGICAL SURVEY, TIME-LIFE PROPERTY, CHICAGO, ILLINOIS, dated May 2000, were available. In a subsequent conversation, Mr. John Yang, Gai-Tech, Inc., indicated that you were interested in just four particular samples.

We have already disposed of all the samples from the investigation, however the gamma spectra are enclosed with this letter. The samples identified by Mr. Yang and the corresponding laboratory ID's are as follows:

TL-BH3 2'-4'	2000034002A
TL-BH4 0'-2'	2000034006A
TL-BH5 2'-4'	2000034010A
TL-BH22 0'-2'	2000034025A

If you have any questions regarding the enclosed results, please let me know.

Sincerely yours,

Barry Koh, Ph.D.
President

Enclosures

cc: John Yang, Gai-Tech, Inc.

BK/ndd

NWF/Misc./Gai-Tech

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*****************************************************************************
*****        G A M M A   S P E   T R U M   A N A L Y S I S        *****
*****************************************************************************

Report Generated On                  :  4/27/00  5:14:30 PM

Sample Title                         : 2000034003A          TL-BH3  2'-4'
Spectrum Description                 :
Sample Identification                :
Sample Type                          : soil
Sample Geometry                      : b1

Peak Locate Threshold                :  2.00
Peak Locate Range (in channels)      :     1 - 65535
Peak Area Range (in channels)        :     1 - 65535
Identification Energy Tolerance      :    1.000 keV

Sample Size                          :  2.010E+002 g

Sample Taken On                      :  4/19/00  6:00:00 AM
Acquisition Started                  :  4/27/00  4:08:00 PM

Live Time                            :     2700.0 seconds
Real Time                            :     2780.5 seconds


          Energy Calibration Used Done On       :  3/20/00
          Efficiency Calibration Used Done On   :  4/26/00
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***** N U C L I D E I D E N T I F I C A T I O N R E P O R T *****
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Sample Title: 2000034003A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

..... IDENTIFIED NUCLIDES .....

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
TL-208	0.969	583.00*	85.80	5.23986E+002	1.87808E+001
		860.00*	12.00	6.17783E+002	1.99054E+001
BI-212	0.841	39.86	1.10		
		727.17*	11.80	9.71392E+002	2.97989E+001
		785.42*	2.00	1.22852E+003	4.39093E+001
		1620.56*	2.75	1.05[illegible]E+003	6.15763E+001
PB-212	0.996	74.81*	9.60	1.53624E+003	6.23081E+001
		77.11*	17.50	1.27237E+003	5.16481E+001
		87.20*	6.30	1.39333E+003	5.17219E+001
		89.80*	1.75	4.43398E+003	1.59009E+002
		115.19*	0.60	1.19346E+003	1.27013E+002
		238.63*	44.60	1.40986E+003	1.51845E+002
		300.09*	3.41	1.28244E+003	1.24063E+002
BI-214	0.995	609.31*	46.30	7.75988E+002	2.61535E+001
		1120.29*	15.10	8.89968E+002	2.40428E+001
		1764.49*	15.80	1.01766E+003	8.23111E+001
PB-214	0.994	241.98*	7.49	1.30527E+003	1.40425E+002
		351.92*	37.20	7.16075E+002	5.88013E+001
RA-226	0.998	186.21*	3.28	9.81091E+002	1.01394E+002
Ac-228	0.990	338.40*	12.01	1.42975E+003	1.22792E+002
		911.07*	29.00	1.60099E+003	4.16767E+001
		968.90*	17.46	1.63112E+003	4.21385E+001
TH-234	0.317	63.30	3.81		
		92.60*	5.40	1.53159E+003	5.28306E+001
U-235	0.592	143.76	10.50		
		163.35	4.70		
		185.71*	54.00	5.95916E+001	6.23301E+000

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 1.000 sigma

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**** I N T E R F E R E N C E C O R R E C T E D R E P O R T ****
****

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
	TL-208	0.969	5.681603E+002	1.366064E+001
	BI-212	0.841	1.053136E+003	2.289004E+001
	PB-212	0.996	1.469674E+003	2.867521E+001
	BI-214	0.995	8.457130E+002	1.730447E+001
	PB-214	0.994	8.039731E+002	5.423819E+001
?	RA-226	0.998	9.810907E+002	1.013943E+002
	Ac-228	0.990	1.605646E+003	2.880493E+001
	TH-234	0.317	1.531587E+003	5.283056E+001
?	U-235	0.592	5.959158E+001	6.233005E+000

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.000 sigma

********** U N I D E N T I F I E D P E A K S **********

Peak Locate Performed on: 4/27/00 5:14:31 PM
Peak Locate From Channel: 1
Peak Locate To Channel: 4096

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
M	1	49.34	6.2842E+000	1.62
m	2	52.95	9.6661E+000	1.17
m	3	57.00	6.1911E+000	1.88
m	4	60.91	3.8586E+000	2.88
M	7	84.47	4.3036E+000	1.66
	11	99.64	2.3573E+000	5.19
M	12	105.53	5.1007E+000	1.45
m	13	108.90	1.9034E+000	3.28
	15	129.20	7.7510E+000	3.25
M	16	141.43	1.8562E-001	31.87
m	17	146.27	6.3302E-001	9.26
m	18	149.48	5.1888E-001	11.10
m	19	154.10	2.5641E+000	2.63
	20	166.60	2.6080E-001	50.60
	21	176.50	-1.1630E-001	-105.68
m	23	191.62	1.4547E-001	35.86
	24	199.40	2.3449E-001	74.78
	25	209.46	8.4069E+000	1.93
	26	216.13	5.1648E-001	26.68
	27	224.24	2.0817E-001	56.60
	30	252.71	4.1136E-001	21.77
	31	258.95	2.8894E-001	40.08
	32	270.44	5.9637E+000	2.07
	33	277.52	3.4853E+000	4.52
	34	288.36	4.6272E-001	18.30
M	35	295.40	1.6889E+001	0.50
	37	315.80	-1.2515E-001	-114.78
	38	321.89	-2.1979E-001	-41.80
M	39	328.16	5.1038E+000	1.07
m	40	332.51	6.4578E-001	5.70
	43	378.10	1.8728E-001	43.50
M	44	386.72	2.4952E-001	13.28
m	45	389.26	2.7352E-001	12.47
M	46	399.98	1.1080E-001	29.21
m	47	405.24	1.2495E-001	24.84
m	48	409.65	2.6265E+000	1.67
M	49	441.02	1.7789E-003	3496.87
m	50	445.27	7.6011E-004	3496.88
	51	453.00	4.2355E-001	22.90
	52	460.20	5.3454E+000	1.95
M	53	469.85	4.7457E-002	55.94
m	54	474.26	9.1612E-002	28.53
m	55	478.69	1.8446E-001	14.64
m	56	480.88	2.4795E-001	11.42
M	57	487.48	2.0719E-001	13.69
m	58	492.37	6.0344E-002	42.40
	59	504.12	-3.4593E-001	-21.68
	60	510.92	9.1733E+000	1.32

M 61 520.34 [illegible] [illegible]

Peak No.	Energy (keV)	Channel	Peak Size in Counts per Second	Peak CPS % Uncertainty
m 62	523.09		4.8960E-002	102.30
63	534.10		9.1045E-002	68.70
M 64	546.58		1.6131E-001	16.32
m 65	549.70		1.5879E-001	16.43
66	562.71		8.4782E-001	7.47
67	571.82		3.2189E-001	19.32
70	651.32		8.2121E-002	85.76
71	658.48		-3.2014E-002	-115.70
72	665.71		7.0007E-001	11.24
M 73	702.66		3.5924E-001	8.00
m 74	707.47		1.9506E-001	13.93
75	719.94		2.0041E-001	30.05
77	755.53		7.6420E-001	10.22
M 78	763.43		3.8854E-001	6.11
m 79	768.57		1.7870E+000	1.78
m 80	772.48		9.7235E-001	2.77
M 81	782.32		3.8556E-001	5.68
83	795.11		3.1409E+000	1.95
84	806.40		3.9799E-001	11.40
M 85	817.09		4.3647E-002	42.04
m 86	821.68		7.0316E-002	25.14
m 87	825.42		1.0810E-001	16.39
m 88	830.69		4.3191E-001	4.63
m 89	835.86		1.2589E+000	2.03
m 90	840.32		8.7981E-001	2.59
92	878.50		-4.9126E-002	-49.93
93	893.58		1.6169E-001	21.88
M 94	904.41		5.0453E-001	4.09
96	926.71		1.5981E-002	264.82
97	934.23		9.9665E-001	4.62
M 98	952.24		2.3273E-002	63.74
m 99	958.67		1.4335E-001	11.08
m100	964.92		3.3601E+000	1.05
m102	975.87		7.1664E-002	19.04
m103	982.35		9.9454E-002	14.05
m104	988.17		1.5754E-001	9.31
M105	1033.42		1.1968E-001	11.96
m106	1040.78		7.7369E-002	17.29
107	1052.29		5.4441E-002	57.53
M108	1065.29		1.2409E-001	11.71
m109	1069.75		6.3095E-002	21.57
110	1078.90		3.5227E-001	10.57
111	1094.01		2.4325E-001	21.06
M112	1103.94		2.8915E-002	42.65
m113	1110.74		1.1468E-001	41.69
115	1133.82		8.3081E-002	35.44
116	1155.31		5.4529E-001	8.12
117	1164.37		-2.2222E-003	-1067.7
118	1172.39		-1.8895E-003	-1058.8
119	1182.20		3.8757E-002	92.57
120	1207.77		1.4072E-001	20.29

Peak No.	Energy (keV)	Channel	Peak Size in Counts per Second	Peak CPS % Uncertainty
121	1238.26		1.4943E+000	2.91
M122	1247.01		3.0008E-001	5.39
m123	1253.26		9.2420E-002	15.34
M124	1281.06		3.7356E-001	4.46
m125	1287.16		8.8347E-002	14.82
126	1303.40		1.3800E-002	151.10
127	1312.32		-2.9949E-002	-63.08
M128	1341.81		2.7512E-002	38.90
m129	1347.24		2.7277E-002	38.71
m130	1352.64		1.7367E-002	58.61
M131	1377.68		1.0758E+000	2.06
m132	1385.20		1.7105E-001	8.33
M133	1401.62		3.3451E-001	4.62
m134	1407.95		5.4576E-001	3.25
M135	1422.38		-9.5536E-003	-223.72
m136	1431.35		-1.3729E-002	-223.66
137	1459.17		2.6896E-001	17.60
138	1480.54		1.7176E-002	153.69
M139	1495.92		4.2400E-001	3.83
m140	1501.66		2.5630E-001	5.50
m141	1509.27		4.9670E-001	3.39
m142	1512.71		1.8922E-001	7.12
M143	1530.89		8.7103E-003	87.22
m144	1538.40		1.3165E-001	6.74
m145	1543.49		1.0217E-001	8.25
146	1557.01		7.5641E-002	26.61
M147	1570.82		1.3683E-002	73.37
m148	1574.72		1.3741E-002	72.82
m149	1580.79		3.1954E-001	4.25
m150	1588.02		1.4507E+000	1.60
m151	1592.57		1.4662E+000	1.59
m152	1598.95		5.9740E-002	18.60
m154	1624.94		1.3892E-001	8.30
m155	1630.48		7.5007E-001	2.38
m156	1638.07		2.2336E-001	5.45
157	1649.92		-3.0938E-002	-52.73
M158	1661.18		2.0232E-001	6.15
m159	1666.61		8.2301E-002	12.76
160	1685.01		5.8423E-002	37.50
161	1694.06		4.4709E-002	72.41
162	1706.31		2.4706E-002	103.68
163	1729.34		6.6685E-001	5.42
M165	1779.76		9.1686E-003	117.47
m166	1782.78		8.7790E-003	117.52
m167	1785.96		7.2498E-003	117.74
M168	1805.76		7.6083E-003	319.30
m169	1812.21		1.0383E-003	323.50
170	1838.12		8.9489E-002	33.31
171	1847.15		4.1291E-001	7.95
172	1872.38		1.6322E-002	114.71
173	1896.67		3.7699E-002	60.36

Peak No.	Energy keV	Channel	Peak Size in Counts per [illegible]	Peak CPS ± Uncertainty
174	1907.28		1.1296E-002	134.96
175	1934.53		7.4243E-003	230.12
M176	1950.03		2.5140E-002	35.96
m177	1958.06		2.1693E-002	41.57

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma

****
***** N U C L I D E M D A R E P O R T *****
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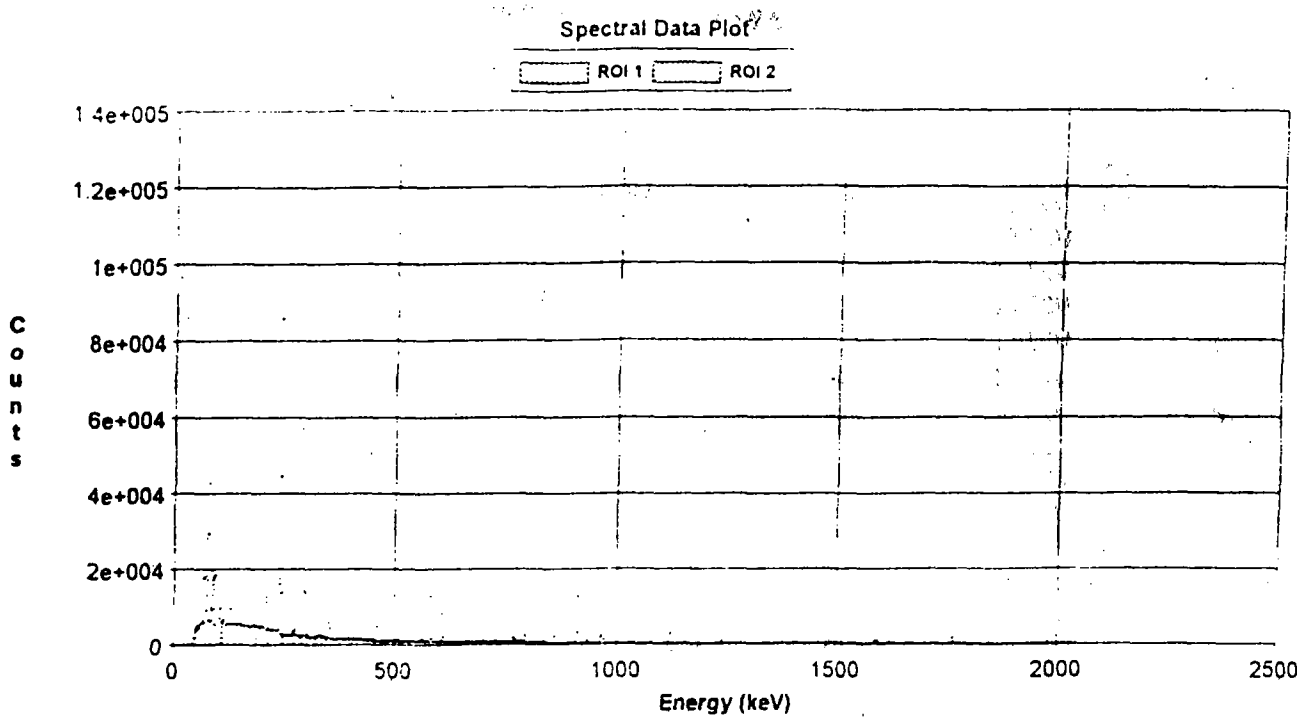
Detector Name: DET02
Sample Geometry: b1
Sample Title: 2000034003A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	K-40	1460.81	10.67	4.4631E+001	4.46E+001	-2.9036E+00
+	TL-208	583.00*	85.80	6.8148E+000	6.81E+000	5.2399E+00
		860.00*	12.00	3.1941E+001		6.1778E+00
+	BI-212	39.86	1.10	1.2186E+001	1.22E+001	-1.9601E+00
		727.17*	11.80	3.4450E+001		9.7139E+00
		785.42*	2.00	1.4917E+002		1.2285E+00
		1620.56*	2.75	1.2393E+002		1.0573E+0
+	PB-212	74.81*	9.60	1.8765E+001	4.37E+000	1.5362E+
		77.11*	17.50	1.4865E+001		1.2724E+00
		87.20*	6.30	3.8391E+001		1.3933E+00
		89.80*	1.75	1.3373E+002		4.4340E+00
		115.19*	0.60	3.7548E+002		1.1935E+00
		238.63*	44.60	4.3725E+000		1.4099E+00
		300.09*	3.41	5.7978E+001		1.2824E+00
+	BI-214	609.31*	46.30	1.2101E+001	1.21E+001	7.7599E+00
		1120.29*	15.10	2.7800E+001		8.8997E+00
		1764.49*	15.80	2.7450E+001		1.0177E+00
+	PB-214	241.98*	7.49	2.6639E+001	1.02E+001	1.3053E+00
		351.92*	37.20	1.0180E+001		7.1607E+00
+	RA-226	186.21*	3.28	6.3902E+001	6.39E+001	9.8109E+0
+	Ac-228	338.40*	12.01	1.8206E+001	1.00E+001	1.4297E+00
		911.07*	29.00	1.0022E+001		1.6010E+00
		968.90*	17.46	1.5632E+001		1.6311E+0
	TH-230	67.70	3.73	9.0743E+001	9.07E+001	-1.2200E+0
+	TH-234	63.30	3.81	8.9092E+001	4.16E+001	-6.3219E+00
		92.60*	5.40	4.1623E+001		1.5316E+00
+	U-235	143.76	10.50	2.3588E+001	3.88E+000	1.7605E+00
		163.35	4.70	5.4904E+001		-6.2286E+00
		185.71*	54.00	3.8814E+000		5.9592E+00
	NP-237	86.00	12.40	2.9963E+001	3.00E+001	1.1169E+00
		108.00	1.27	2.1917E+002		3.1865E+00
		143.25	0.43	5.7503E+002		3.3543E+00
	AM-241	59.54	36.30	9.4361E+000	9.44E+000	-2.2997E+00

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction



Datasource: DET02
Live Time: 2700 sec
Real Time: 2781 sec
Acq. Start: 4/27/00 4:08:00 PM
Start: 1 : -0.20 (keV)
Stop: 4096 : 2044.96 (keV)

SAMPLE ID	DATE ANALYZED	PCI/G AC228	ERROR	MDA
2000034001A	4/26/00	BDL		1.2
DUP	4/27/00	BDL		0.7
2000034002A	4/27/00	2.4	0.2	0.6
2000034003A	4/27/00	2112.8	37.8	13.1
DUP	4/27/00	2060.3	42.1	27.6
2000034004A	4/27/00	370.0	7.6	4.6
2000034005A	4/26/00	BDL		0.7
2000034006A	4/27/00	151.6	3.9	4.2
2000034007A	4/27/00	3.5	0.4	0.8
2000034008A	4/27/00	29.6	1.1	1.7
2000034009A	4/27/00	3.2	0.2	0.9
2000034010A	4/27/00	27.7	1.0	3.6
2000034011A	4/26/00	14.7	0.8	1.4
2000034012A	4/26/00	BDL		0.6
2000034013A	4/26/00	5.2	0.4	1.1
2000034014A	4/26/00	2.9	0.2	1.2
2000034015A	4/26/00	6.8	0.6	1.5
				0.0
2000034016A	4/26/00	4.3	0.4	1.0
				0.0
2000034017A	4/27/00	3.0	0.2	0.8
2000034018A	4/27/00	5.8	0.5	1.5
2000034019A	4/27/00	BDL		1.5
2000034020A	4/27/00	170.0	4.2	4.6
2000034021A	4/27/00	216.1	4.7	2.9
2000034022A	4/27/00	226.0	18.8	6.9
2000034023A	4/27/00	BDL		0.6
2000034024A	4/27/00	BDL		1.3
2000034025A	4/27/00	63.2	1.6	2.7
2000034026A	4/27/00	6.2	0.4	1.1
2000034027A	4/27/00	9.3	0.8	1.8
2000034028A	4/27/00	BDL		0.9
2000034029A	4/27/00	BDL		0.8
2000034030A	4/27/00	BDL		1.1
2000034031A	4/27/00	BDL		1.8
				0.0
2000034032A	4/27/00	BDL		0.8

QC REPORT

analyte AC228 units pCi/g
project 20000340 sample id 3

	result	error	known	%rec	rpd
blank	ND				
lcs	1076.00	BI214	1073	100.3%	
sample	2110.000				
md	2060.000				2.4%

65

% MOISTURE

27-Apr-00 10:00

SAMPLE ID	EMPTY PAN	SOIL + PAN	WET SOIL	DRY PAN + SOIL	DRY SOIL	% MOISTURE	DWF	TS
2000034001A	2.1682	4.6626	2.4944	4.5840	2.4158	3.15%	1.033	96.85%
2000034002A	2.1579	4.3296	2.1717	4.2085	2.0506	5.58%	1.059	94.42%
2000034003A	2.2250	4.3155	2.0905	3.8180	1.5930	23.80%	1.312	76.20%
2000034004A	2.1550	4.2843	2.1293	3.7491	1.5941	25.14%	1.336	74.86%
2000034005A	2.1804	4.1737	1.9933	3.8948	1.7144	13.99%	1.163	86.01%
2000034006A	2.2135	4.1954	1.9819	4.0441	1.8306	7.63%	1.083	92.37%
2000034007A	2.1703	4.2650	2.0947	3.9140	1.7437	16.76%	1.201	83.24%
2000034008A	2.2436	4.5920	2.3484	4.1336	1.8900	19.52%	1.243	80.48%
2000034009A	2.1851	4.4235	2.2384	4.3357	2.1506	3.92%	1.041	96.08%
2000034010A	2.1788	4.2334	2.0546	3.7749	1.5961	22.32%	1.287	77.68%
2000034011A	2.1795	4.4073	2.2278	3.9381	1.7586	21.06%	1.267	78.94%
2000034012A	2.1783	4.4732	2.2949	4.2798	2.1015	8.43%	1.092	91.57%
2000034013A	2.1852	4.2061	2.0209	4.0200	1.8348	9.21%	1.101	90.79%
2000034014A	2.1869	4.3860	2.1991	3.9557	1.7688	19.57%	1.243	80.43%
2000034015A	2.1702	4.4454	2.2752	4.0975	1.9273	15.29%	1.181	84.71%
MD	2.1887	4.2682	2.0795	3.8994	1.7107	17.74%	1.216	82.26%
2000034016A	2.1801	4.1916	2.0115	3.7994	1.6193	19.50%	1.242	80.50%
2000034017A	2.1732	4.5296	2.3564	4.2019	2.0287	13.91%	1.162	86.09%
2000034018A	2.1793	4.5844	2.4051	3.7100	1.5307	36.36%	1.571	63.64%
2000034019A	2.1576	4.4169	2.2593	4.2547	2.0971	7.18%	1.077	92.82%
2000034020A	2.1669	4.2084	2.0415	4.0285	1.8616	8.81%	1.097	91.19%
2000034021A	2.1752	4.3319	2.1567	4.0611	1.8859	12.58%	1.144	87.44%
2000034022A	2.1991	4.3266	2.1275	3.8090	1.6099	24.33%	1.322	75.67%
2000034023A	2.1788	4.3217	2.1429	4.2121	2.0333	5.11%	1.054	94.89%
2000034024A	2.1612	4.3553	2.1941	4.1596	1.9984	8.92%	1.098	91.08%
2000034025A	2.1636	4.7668	2.6032	4.3970	2.2334	14.21%	1.166	85.79%
2000034026A	2.1755	4.1815	2.0060	3.8707	1.6952	15.49%	1.183	84.51%
2000034027A	2.1719	4.2303	2.0584	3.8096	1.6377	20.44%	1.257	79.56%

2000034028A	2.1752	4.6986	2.5234	4.4710	2.2958	9.02%	1.099	90.98%
2000034029A	2.1681	4.4295	2.2614	4.2503	2.0822	7.92%	1.086	92.08%
2000034030A	2.1829	4.5467	2.3638	4.1502	1.9673	16.77%	1.202	83.23%
2000034031A	2.1622	4.2252	2.0630	4.0362	1.8740	9.16%	1.101	90.84%
MD	2.1860	4.2203	2.0343	4.0781	1.8921	6.99%	1.075	93.01%
2000034032A	2.1638	4.6083	2.4445	4.4413	2.2775	6.83%	1.073	93.17%

TECHNICIAN KAR

LAB APPROVAL

%MOISTURE RPD = 14.8%

%TOTAL SOLIDS RPD = 2.9%

O:\EXCEL\ANALYSES\INORGANICS\LOD - MOISTURE\[20000340.XLS]Sheet1

****
***** GAMMA SPECTRUM ANALYSIS *****
****

Report Generated On	: 4/27/00 5:16:21 PM
Sample Title	: 0000034006A TL-BH4 0-2'
Spectrum Description	:
Sample Identification	:
Sample Type	: soil
Sample Geometry	: b1
Peak Locate Threshold	: 5.00
Peak Locate Range (in channels)	: 1 - 65535
Peak Area Range (in channels)	: 1 - 65535
Identification Energy Tolerance	: 0.500 keV
Sample Size	: 2.200E+002 g
Sample Taken On	: 4/19/00 4:00:00 PM
Acquisition Started	: 4/27/00 4:09:47 PM
Live Time	: 2700.1 seconds
Real Time	: 2777.9 seconds

Energy Calibration Used Done On	: 4/26/00
Efficiency Calibration Used Done On	: 4/26/00

**** N U C L I D E I D E N T I F I C A T I O N R E P O R T ****

Sample Title: 2000034006A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
TL-208	0.800	583.00*	85.80	5.13188E+001	2.16595E+000
		860.00	12.00		
BI-212	0.747	39.86	1.10		
		727.17*	11.80	9.02758E+001	5.39016E+000
		785.42*	2.00	4.56873E+001	1.74795E+001
		1620.56*	2.75	1.11533E+002	1.79057E+001
[illegible]-212	0.999	74.81*	9.60	1.51821E+002	7.01247E+000
		77.11*	17.50	1.21803E+002	5.54037E+000
		87.20*	6.30	1.42332E+002	6.44267E+000
		89.80*	1.75	3.82098E+002	1.78377E+001
		115.19*	0.60	-4.40081E+001	6.27239E+001
		238.63*	44.60	1.44434E+002	1.68624E+001
		300.09*	3.41	1.36775E+002	1.53948E+001
BI-214	0.514	609.31*	46.30	1.28648E+001	1.18293E+000
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.686	241.98	7.49		
		351.92*	37.20	1.35269E+001	1.61553E+000
RA-226	0.991	186.21*	3.28	3.51534E+001	1.25269E+001
Ac-228	0.994	338.40*	12.01	1.37277E+002	1.34810E+001
		911.07*	29.00	1.37043E+002	4.90306E+000
		968.90*	17.46	1.43829E+002	5.59776E+000
[illegible]235	0.562	143.76	10.50		
		163.35	4.70		
		185.71*	54.00	2.13522E+000	7.61665E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 0.500 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 1.000 sigma

****
***** I N T E R F E R E N C E C O R R E C T E D R E P O R T *****
****

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/g	Wt mean Activity Uncertainty
	TL-208	0.800	5.131884E+001	2.165951E+000
	BI-212	0.747	8.832460E+001	4.950076E+000
	PB-212	0.999	1.453464E+002	3.373216E+000
	BI-214	0.514	1.286482E+001	1.182926E+000
	PB-214	0.686	1.352694E+001	1.615530E+000
?	RA-226	0.991	3.515339E+001	1.252694E+001
	Ac-228	0.994	1.398004E+002	3.557545E+000
?	U-235	0.562	2.135223E+000	7.616648E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.000 sigma

********** U N I D E N T I F I E D P E A K S **********

Peak Locate Performed on: 4/27/00 5:14:00 PM
Peak Locate From Channel: 1
Peak Locate To Channel: 4096

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
	1	46.73	4.4304E-001	5.99
M	4	84.24	4.3029E-001	4.96
m	7	93.29	1.1537E+000	2.75
m	**8**	**99.48**	**1.9126E-001**	**9.25**
	9	105.41	1.8208E-001	19.07
	11	129.11	4.9218E-001	9.12
	12	154.08	1.2349E-001	33.67
	14	209.29	5.7766E-001	6.50
m	16	241.07	5.9627E-001	2.94
	17	270.28	2.0477E-001	17.50
	18	277.36	2.8811E-001	8.55
M	19	295.21	1.9362E-001	6.23
	21	327.95	2.3381E-001	16.11
	24	409.41	1.0776E-001	14.84
	25	462.96	3.0629E-001	7.50
	26	510.69	5.4246E-001	4.14
	30	772.25	4.8238E-002	25.35
	32	794.96	1.6915E-001	7.15
	33	835.51	3.3765E-002	28.65
	34	860.55	1.8825E-001	5.93
M	36	964.72	1.6978E-001	5.27
M	38	1587.38	8.2309E-002	7.34
m	39	1591.56	1.1459E-001	6.15

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

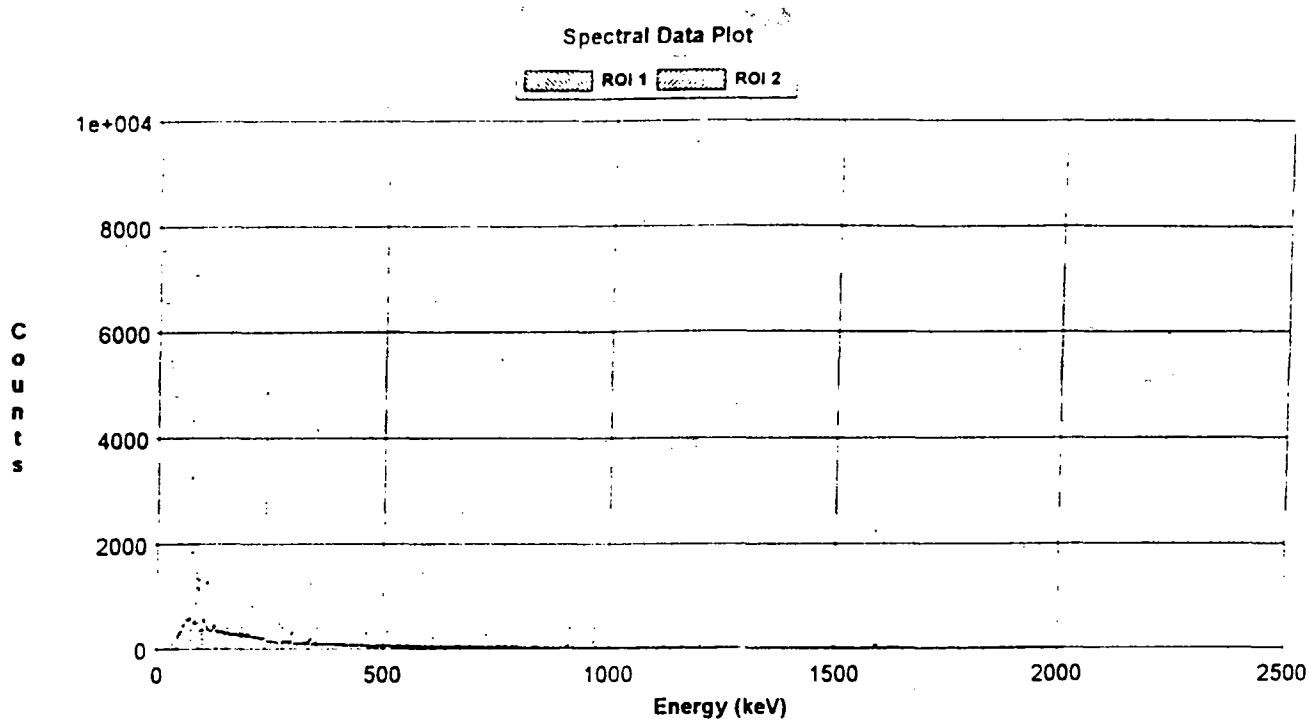
Errors quoted at 1.000 sigma

NUCLIDE MDA REPORT

Detector Name: DET03
Sample Geometry: b1
Sample Title: 2000034006A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	K-40	1460.81	10.67	1.5783E+001	1.58E+001	7.3165E+000
+	TL-208	583.00*	85.80	2.0344E+000	2.03E+000	5.1319E+001
		860.00	12.00	1.5977E+001		6.0087E+001
+	BI-212	39.86	1.10	6.1771E-001	6.18E-001	0.0000E+000
		727.17*	11.80	1.1976E+001		9.0276E+001
		785.42*	2.00	5.6195E+001		5687E+0[illegible]
		1620.56*	2.75	4.3805E+001		1.1153E+00[illegible]
+	PB-212	74.81*	9.60	7.5246E+000	1.46E-000	1.5182E+00[illegible]
		77.11*	17.50	3.7216E+000		1.2190E+00[illegible]
		87.20*	6.30	1.0532E+001		1.4233E+00[illegible]
		89.60*	1.75	3.7100E+001		3.8210E+002
		115.19*	0.60	2.0786E+002		-4.4008E+001
		238.63*	44.60	1.4633E+000		1.4443E+002
		300.09*	3.41	1.9131E+001		1.3677E+00[illegible]
+	BI-214	609.31*	46.30	3.2014E+000	3.20E+000	1.2865E+001
		1120.29	15.10	1.0427E+001		1.5830E+001
		1764.49	15.80	1.4755E+001		2.2782E+001
+	PB-214	241.98	7.49	3.4177E+001	3.23E+000	9.0607E+002
		351.92*	37.20	3.2291E+000		1.3527E+001
+	RA-226	186.21*	3.28	3.8996E+001	3.90E+001	3.5153E+001
+	Ac-228	338.40*	12.01	1.0725E+001	3.92E+000	1.3728E+002
		911.07*	29.00	3.9185E+000		1.3704E+002
		968.90*	17.46	5.0160E+000		1.4383E+00[illegible]
	TH-230	67.70	3.73	2.4953E+001	2.50E+001	-5.0138E+001
	TH-234	63.30	3.81	2.0142E+001	2.01E+001	1.7263E+001
		92.60	**5.40**	**2.0751E+001**		**1.3235E+002**
+	U-235	143.76	10.50	7.7691E+000	2.37E+000	2.4292E+000
		163.35	4.70	1.6824E+001		-1.2489E+001
		185.71*	54.00	2.3686E+000		2.1352E+000
	NP-237	86.00	12.40	9.1764E+000	9.18E+000	2.2583E+001
		108.00	1.27	6.6097E+001		-2.4903E+001
		143.25	0.43	1.8980E+002		5.7189E+001
	AM-241	59.54	36.30	1.9767E+000	1.98E+000	-1.0588E+000

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction



Datasource:	**DET03**
Live Time:	**2700 sec**
Real Time:	**2778 sec**
Acq. Start:	**4/27/00 4:09:47 PM**
Start:	**1 : -0.98 (keV)**
Stop:	**4096 : 2013.28 (keV)**

****
**** G A M M A S P E C T R U M A N A L Y S I S ****
****

eport Generated On	: 4 [illegible] 11:51:43 AM	
ample Title	: 2000034010A	TL-BH5 2'-4'
pectrum Description	:	
ample Identification	:	
ample Type	: soil	
ample Geometry	: b1	
eak Locate Threshold	: 5.00	
eak Locate Range (in channels)	: 1 - 65535	
eak Area Range (in channels)	: 1 - 65535	
dentification Energy Tolerance	: 0.500 keV	
ample Size	: 1.930E+002 g	
ample Taken On	: 4/19/00 4:00:00 PM	
quisition Started	: 4/27/00 10:51:06 AM	
ive Time	: 2700.1 seconds	
al Time	: 2701.4 seconds	

Energy Calibration Used Done On : 4/26/00
Efficiency Calibration Used Done On : 4/26/00

**** N U C L I D E I D E N T I F I C A T I O N R E P O R T ****

Sample Title: 20000340104
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
TL-208	0.810	583.00*	85.80	8.60543E+000	5.48412E-001
		860.00	12.00		
BI-212	0.450	39.86	1.10		
		727.17*	11.80	1.66799E+001	2.54139E+000
		785.42	2.00		
		1620.56	2.75		
PB-212	0.966	74.81*	9.60	3.29368E-001	1.82998E+000
		77.11*	17.50	2.73478E+001	1.40327E+000
		87.20*	6.30	2.61704E+001	1.70400E+000
		89.80*	1.75	5.43590E+001	4.60069E+000
		115.19	0.60		
		238.63*	44.60	2.95906E+001	3.50868E+000
		300.09*	3.41	2.15629E+001	3.30898E+000
BI-214	0.517	609.31*	46.30	4.51801E+000	5.53925E-001
		1120.29	15.10		
		1764.49	15.80		
PB-214	0.683	241.98	7.49		
		351.92*	37.20	6.07282E+000	7.94114E-001
Ac-228	0.990	338.40*	12.01	2.31929E+001	2.86553E+000
		911.07*	29.00	2.15018E+001	1.53370E+000
		968.90*	17.46	2.05670E+001	1.97747E+000

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 0.500 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 1.000 sigma

****
***** INTERFERENCE CORRECTED REPORT *****
****

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
TL-208	0.810	8.605427E+000	5.484116E-001
BI-212	0.450	1.667991E+001	2.541392E+000
PB-212	0.986	2.894806E+001	8.541554E-001
BI-214	0.517	4.518008E+000	5.539253E-001
PB-214	0.683	6.072822E+000	7.941142E-001
Ac-228	0.990	2.146056E+001	1.116195E+000

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains e r lir t used in Weighted Mean Activity

Errors quoted at 1.000 sigma

********** U N I D E N T I F I E D P E A K S **********

Peak Locate Performed On: 4/27/00 11:51:43 AM
Peak Locate From Channel: 1
Peak Locate To Channel: 4096

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS ± Uncertainty
	1	46.61	2.5573E-001	6.11
m	6	93.24	1.3301E-001	7.39
	7	209.28	7.0533E-002	18.26
	9	270.08	8.1075E-002	16.63
M	10	295.25	6.3184E-002	9.79
	12	327.93	3.7020E-002	23.62
	15	510.67	9.6284E-002	11.61
	19	860.57	2.5589E-002	17.70

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

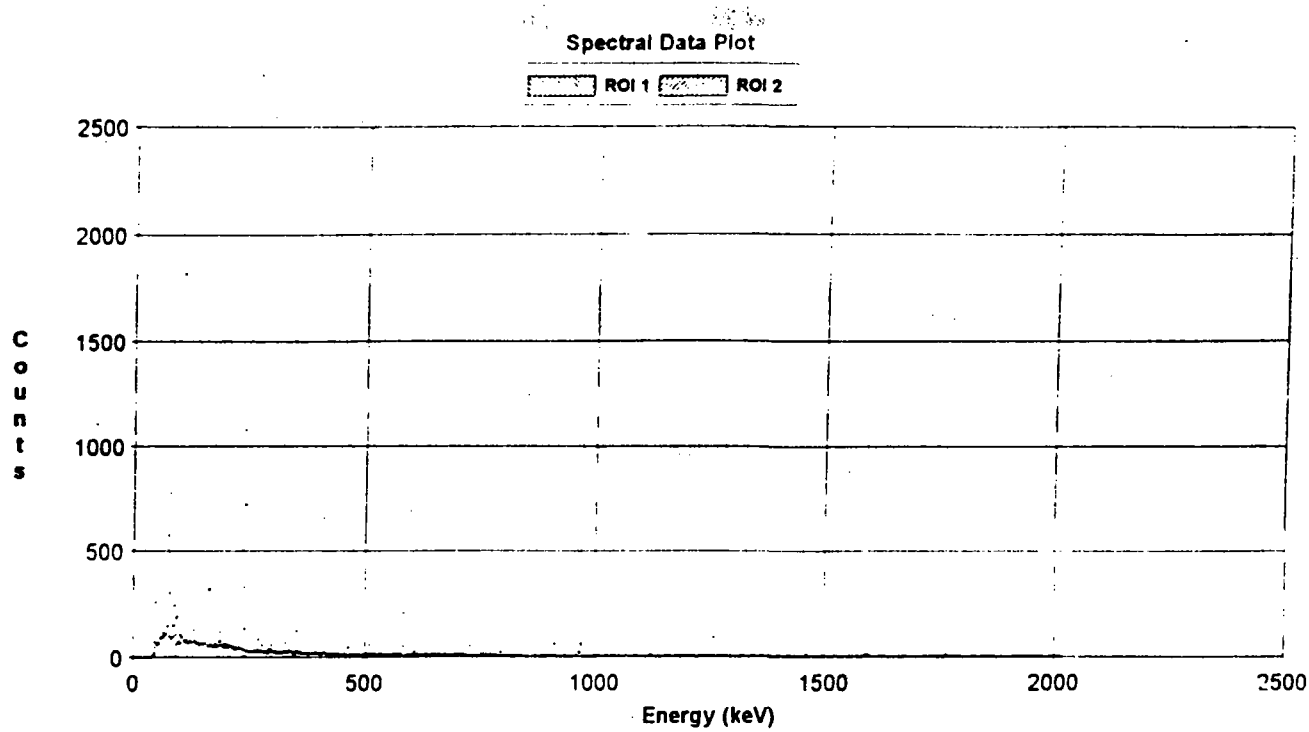
Errors quoted at 1.000 sigma

****
***** NUCLIDE MDA REPORT *****
****

Detector Name: DET03
Sample Geometry: b1
Sample Title: 2000034010A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
	K-40	1460.81	10.67	1.1663E+001	1.17E+001	1.2550E+001
+	TL-208	583.00*	85.80	9.8646E-001	9.86E-001	8.6054E+000
		860.00	12.00	7.9846E+000		1.3594E+001
+	BI-212	39.86	1.10	7.0414E-001	7.04E-001	0.0000E+000
		727.17*	11.80	7.0900E+000		1.6680E+001
		785.42	2.00	3.8043E+001		1.6569E+00[illegible]
		1620.56	2.75	3.4988E+001		3.9173E+00[illegible]
+	PB-212	74.81*	9.60	3.5726E+000	1.26E+000	3.2937E+001
		77.11*	17.50	1.7461E+000		2.7348E+001
		87.20*	6.30	4.8607E+000		2.6170E+001
		89.80*	1.75	1.7066E+001		5.4359E+001
		115.19	0.60	6.3350E+001		4.6323E+001
		238.63*	44.60	1.2592E+000		2.9591E+001
		300.09*	3.41	9.8918E+000		2.1563E+001
+	BI-214	609.31*	46.30	1.4159E+000	1.42E+000	4.5180E+000
		1120.29	15.10	6.3702E+000		4.7830E+000
		1764.49	15.80	8.6506E+000		4.5531E+000
+	PB-214	241.98	7.49	1.5868E+001	1.62E+000	-4.0520E+000
		351.92*	37.20	1.6243E+000		6.0728E+000
	RA-226	186.21	3.28	1.3435E+001	1.34E+001	6.3377E+000
+	Ac-228	338.40*	12.01	5.1290E+000	2.83E+000	2.3193E+001
		911.07*	29.00	2.8320E+000		2.1502E+001
		968.90*	17.46	4.1088E+000		2.0567E+00[illegible]
	TH-230	67.70	3.73	1.1959E+001	1.20E+001	-1.0527E+001
	TH-234	63.30	3.81	9.7986E+000	9.25E+000	5.6604E+000
		92.60	5.40	9.2456E+000		1.6495E+001
	U-235	143.76	10.50	3.6940E+000	8.20E-001	-1.9147E+000
		163.35	4.70	8.4045E+000		2.2524E+000
		185.71	54.00	8.1984E-001		3.3332E-001
	NP-237	86.00	12.40	4.2465E+000	4.25E+000	5.2722E+000
		108.00	1.27	3.1864E+001		3.7160E+001
		143.25	0.43	9.0239E+001		-4.0296E+001
	AM-241	59.54	36.30	9.6335E-001	9.63E-001	-1.9380E-001

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction



Datasource:	DET03
Live Time:	2700 sec
Real Time:	2701 sec
Acq. Start:	4/27/00 10:51:06 AM
Start:	1 : -6.98 (keV)
Stop:	4096 : 2013.28 (keV)

****
**** GAMMA SPECTRUM ANALYSIS *****
****

eport Generated On	:	4/27/00 4: 7:14 PM
ample Title	:	20000340258 TL-BH 22 0-2'
pectrum Description	:	
ample Identification	:	
ample Type	:	soil
ample Geometry	:	bl
eak Locate Threshold	:	2.00
eak Locate Range (in channels)	:	1 - 65535
eak Area Range (in channels)	:	1 - 65535
dentification Energy Tolerance	:	1.000 keV
ample Size	:	1.920E+002 g
ample Taken On	:	4/19/00 6:00:00 AM
cquisition Started	:	4/27/00 3:19:40 PM
ive Time	:	2700.1 seconds
eal Time	:	2717.4 seconds

Energy Calibration Used Done On	:	3/20/00
Efficiency Calibration Used Done On	:	4/26/00

**** N U C L I D E I D E N T I F I C A T I O N R E P O R T ****

Sample Title: 20000034025A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/g)	Activity Uncertainty
K-40	0.875	1460.81*	10.67	1.63799E+001	2.61870E+000
TL-208	0.979	583.00*	85.80	2.13913E+001	8.46845E-001
		860.00*	12.00	2.58943E+001	2.10718E+000
BI-212	0.849	39.86	1.10		
		727.17*	11.80	3.78217E+001	2.58169E+000
		785.42*	2.00	6.63497E+001	1.26701E+001
		1620.56*	2.75	2.50843E+001	9.03904E+000
PB-212	0.998	74.81*	9.60	8.66012E+001	3.85905E+000
		77.11*	17.50	7.07270E+001	3.03963E+000
		87.20*	6.30	6.63263E+001	3.00938E+000
		89.80*	1.75	1.41730E+002	7.39306E+000
		115.19*	0.60	4.78592E+001	2.39826E+001
		238.63*	44.60	5.99744E+001	6.48389E+000
		300.09*	3.41	5.28593E+001	5.72363E+000
BI-214	0.997	609.31*	46.30	9.82726E+000	7.25106E-001
		1120.29*	15.10	1.46659E+001	1.68128E+000
		1764.49*	15.80	1.28570E+001	2.35802E+000
PB-214	0.990	241.98*	7.49	3.40805E+001	3.86558E+000
		351.92*	37.20	9.95015E+000	1.01631E+000
RA-226	1.000	186.21*	3.28	1.99740E+001	5.43236E+000
Ac-228	0.996	338.40*	12.01	4.66543E+001	4.58838E+000
		911.07*	29.00	5.48499E+001	2.06123E+000
		968.90*	17.46	5.50874E+001	2.19815E+000
TH-230	0.898	67.70*	3.73	-2.17421E+000	3.74719E+000
TH-234	0.318	63.30	3.81		
		92.60*	5.40	4.39984E+001	2.27547E+000
U-235	0.606	143.76	10.50		
		163.35	4.70		
		185.71*	54.00	1.21323E+000	3.30540E-001

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 1.000 sigma

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**** I N T E R F E R E N C E C O R R E C T E D R E P O R T ****
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	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/g)	Wt mean Activity Uncertainty
	K-40	0.875	1.637993E+001	2.618704E+000
	TL-208	0.979	2.201746E+001	7.857687E-001
	BI-212	0.849	3.795117E+001	2.436101E+000
	PB-212	0.998	7.360894E+001	1.666162E+000
	BI-214	0.997	1.075380E+001	6.407682E-001
	PB-214	0.990	1.151028E+001	9.829052E-001
?	RA-226	1.000	1.997405E+001	5.432356E+000
	Ac-228	0.996	5.415551E+001	1.428825E+000
	TH-230	0.898	-2.174213E+000	3.747190E+000
	TH-234	0.316	4.399844E+001	2.275469E+000
?	U-235	0.606	1.213226E+000	3.305398E-001

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.000 sigma

********** U N I D E N T I F I E D P E A K S **********

Peak Locate Performed on: [illegible] 4:[illegible]:14 PM
Peak Locate From Channel: [illegible]
Peak Locate To Channel: [illegible]

	Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
	1	53.43	1.5961E-001	17.46
	2	60.86	3.9212E-002	121.65
m	6	81.29	6.9561E-002	17.98
m	7	84.27	2.3336E-001	6.21
	11	99.79	9.7331E-002	26.77
	12	105.61	-2.1367E-002	-146.63
	14	129.15	2.9499E-001	15.00
	15	154.15	1.2326E-001	36.78
M	16	164.60	-2.9884E-003	-245.58
m	17	166.78	-6.9997E-003	-245.30
M	19	196.93	1.0611E-002	50.13
m	20	202.16	1.2642E-002	44.92
	21	209.47	3.2590E-001	8.29
	24	252.84	1.0408E-003	1184.70
	25	270.35	2.5547E-001	8.75
	26	277.40	1.2422E-001	22.67
M	27	295.30	2.2454E-001	4.89
	29	322.01	7.6873E-003	138.08
	30	328.17	1.4532E-001	11.19
	33	409.61	6.3703E-002	24.30
	34	418.83	-1.6296E-004	-6053.6
	35	463.25	1.5852E-001	13.23
	36	488.50	3.6531E-003	254.76
	37	510.91	3.5789E-001	5.50
	38	562.66	3.2492E-002	40.67
m	40	589.33	1.0535E-002	44.24
	42	677.00	-2.8951E-004	-2097.8
	43	685.46	-1.7977E-003	-393.18
	45	755.04	4.0785E-002	25.41
M	46	763.80	1.6963E-002	24.23
m	47	768.32	2.4499E-002	17.17
m	48	772.36	3.3402E-002	13.75
	50	795.09	1.0587E-001	10.01
	51	805.68	-6.8440E-004	-896.57
M	52	830.94	8.3045E-003	36.48
m	53	835.84	4.6024E-002	9.66
m	54	840.34	1.7345E-002	18.66
m	55	846.83	2.4603E-003	102.81
M	57	886.38	1.1031E-003	230.88
m	58	893.07	3.7295E-003	228.90
	60	922.17	-1.9864E-003	-244.22
M	61	959.20	6.8397E-003	43.10
m	62	964.82	9.8070E-002	6.19
	64	988.39	7.5708E-003	69.98
	65	1000.88	-1.9230E-004	-2002.9
	66	1051.96	2.2222E-003	175.54
	67	1078.76	1.1432E-002	39.71
	68	1093.41	1.3036E-003	377.24

69	1110.50	7.3174E-[illegible]	58.81

Peak No.	Energy (keV)	Channel	Peak Area in Counts per Second	Peak CPS ± Uncertainty
71	1213.40		[illegible]	164.93
72	1238.03		[illegible]	[illegible]
73	1246.48		[illegible]	161.75
74	1293.33		3.9896E-003	85.60
75	1332.05		-2.3108E-003	-161.22
M 76	1443.90		2.2305E-004	1472.47
m 77	1447.89		1.8599E-004	1472.50
M 79	1495.92		1.0042E-002	23.98
m 80	1501.16		7.4640E-003	29.78
m 81	1509.03		8.0336E-003	27.87
m 82	1513.30		1.0649E-002	22.85
83	1556.00		5.5454E-003	65.84
M 84	1579.63		7.0072E-003	32.88
m 85	1587.96		5.3565E-002	8.63
m 86	1592.57		4.6153E-002	9.44
88	1630.61		[illegible]	25.99
89	1661.87		[illegible]	142.17
M 90	1678.72		[illegible]	314.93
m 91	1686.66		7.5491E-004	315.14
92	1728.69		5.2013E-003	81.11
93	1754.47		1.8287E-003	133.19
95	1853.63		-1.4014E-004	-2626.8
96	1960.52		4.3013E-003	66.92
97	1971.01		2.7983E-003	90.78

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma

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***** N U C L I D E M D A R E P O R T *****
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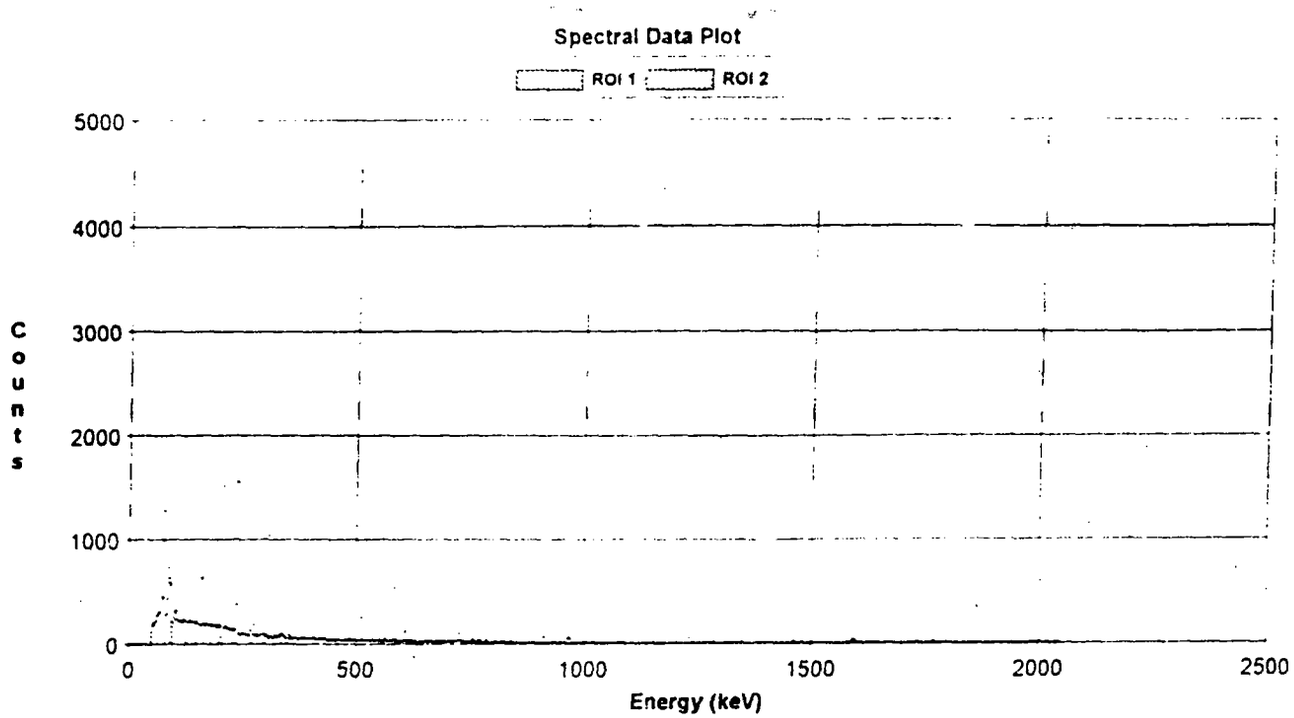
Detector Name: DET12
Sample Geometry: bl
Sample Title: 2000034025A
Nuclide Library Used: C:\GENIE2K\CAMFILES\NATURAL.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/g)	Nuclide MDA (pCi/g)	Activity (pCi/g)
+	K-40	1460.81*	10.67	7.1512E+000	7.15E+000	1.6380E+001
+	TL-208	583.00*	85.80	6.4965E-001	6.50E-001	2.1391E+001
		860.00*	12.00	4.8872E+000		2.5894E+001
+	BI-212	39.86	1.10	9.2771E-001	9.28E-001	0.0000E+000
		727.17*	11.80	5.9804E+000		3.7822E+001
		785.42*	2.00	3.86[illegible]E-001		6.6350E+00[illegible]
		1620.56*	2.75	2.6078E+001		2.5084E+00[illegible]
+	PB-212	74.81*	9.67	6.2038E+000	9.05E-001	6.6601E+00[illegible]
		77.11*	17.50	3.1085E+000		7.0727E+001
		87.20*	6.30	7.9783E+000		6.6326E+001
		89.80*	1.75	2.7893E+001		1.4173E+002
		115.19*	0.60	7.8398E+001		4.7859E+001
		238.63*	44.60	9.0464E-001		5.9974E+001
		300.09*	3.41	1.1477E+001		5.2859E+001
+	BI-214	609.31*	46.30	1.7899E+000	1.79E+000	9.8273E+000
		1120.29*	15.10	4.3373E+000		1.4666E+001
		1764.49*	15.80	5.9765E+000		1.2857E+001
+	PB-214	241.98*	7.49	4.8398E+000	1.74E+000	3.4081E+001
		351.92*	37.20	1.7417E+000		9.9502E+000
+	RA-226	186.21*	3.28	1.6299E+001	1.63E+001	1.9974E+001
+	Ac-228	338.40*	12.01	6.4002E+000	2.29E+000	4.6654E+001
		911.07*	29.00	2.2888E+000		5.4850E+001
		968.90*	17.46	2.7648E+000		5.5087E+00[illegible]
+	TH-230	67.70*	3.73	1.2575E+001	1.26E+001	-2.1742E+00[illegible]
+	TH-234	63.30	3.81	2.0493E+001	8.74E+000	8.6654E+00[illegible]
		92.60*	5.40	8.7368E+000		4.3998E+001
+	U-235	143.76	10.50	4.7888E+000	9.90E-001	3.3857E+000
		163.35	4.70	1.0787E+001		1.2572E+000
		185.71*	54.00	9.9001E-001		1.2132E+000
	NP-237	86.00	12.40	6.4616E+000	6.46E+000	1.5030E+001
		108.00	1.27	4.3076E+001		-1.3082E+001
		143.25	0.43	1.1615E+002		3.8659E+001
	AM-241	59.54	36.30	2.1060E+000	2.11E+000	-7.1429E-001

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction



Datasource:	DET02
Live Time:	2700 sec
Real Time:	2717 sec
Acq. Start:	4/27/00 3:19:40 PM
Start:	1 : -0.20 (keV)
Stop:	4096 : 2044.96 (keV)